amounts of volumes as being resolved into their constituents. For the hydrogen it has been already shown, and for the O one adopts the same methods as brought into use in the expressions (2) and (6).
The composition ol the gases now appears in much simpler form and consists as follows :—
C poorest Gas.
94*6 cubic metres gas from 7*4 cubic metres 0 + nil N + 109*6 cubic metres H, and 0.
These -would have :— Combustible value 421,467 calorics Carbon. . . 22-43 kg. Marsh, eras . . 29*9 cbm.
C-ricliest (Jus.
9*99 cubic metres gas from (VI5 cubic metres (..)-)-'{• 3 cubic metres N+124 cubic metres 11, and U.
506,637 calories 28'«">7 kilo«>ratninos 43 cubic metres
Per 1 cubic metre H in the distillation gas (taken in tho free state) combustible value would be : —
calories
421,467 , 109-6 —' Carbon:—
23-43 A ftrt , .. fog^j" =0*20 kilogramme
Marsh, gas:—
22-9 H , . 77vq77;=0'27 cubic metre CH4
.506,307
28-57 124-G"
, . calories
==: ^"^ kilogramme
43-0 T^jr;;===0'*35 cubic metre C1T4
And, lastly, if one takes into consideration 0, N, CO* and CO.
7*4 =T7\7TB=0'07 cubic metre O
C02 0-03 cubic metre C02 CO 0-07 „ CO
(V15 7-=0'03 cubic metre 0
3-5 ,7=0-03
0-015
0-07
N
CO* CO
In the analysis selected for the C-poorest gas, unfortunately, the N content is not given. Nevertheless, in practically all classes of coal N is contained, and goes over into the gas. As the amount is not considerable, let the mean amount of N be taken as good for the C-poorest gas, and therefore N be taken=0*03 cubic metre H/:
All the figures given in formulae No. 2G in the Appendix are
1 The hydrogen, owing its origin to the distillation gases, is distinguished by a suffix, thus, Hd.